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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,344	08/02/2001	Sherwood G. Talbert	12524	6020

7590 10/28/2002

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EXAMINER

HOEY, BETSEY MORRISON

ART UNIT	PAPER NUMBER
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1724

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DATE MAILED: 10/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/921,344	TALBERT ET AL.	
	Examiner	Art Unit	
	HOEY, BETSEY	1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 02 August 2001.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-106 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☐ Claim(s) _____ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☒ Claim(s) 1-106 are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-26, 48-53, 92-97 and 99-101, drawn to an apparatus for providing purified water, a water purifier, or a water treating system, classified in class 210, subclass 175.
 - II. Claims 27-47 and 98, drawn to a method for purifying water or a method for purifying a water distribution system, classified in class 422, subclass 38.
 - III. Claims 54-59 and 102-104, drawn to a heat exchanger, classified in class 165, subclass 186.
 - IV. Claims 60-62, drawn to a method to fit a water heater with a heat exchanger, classified in class 126, subclass 344.
 - V. Claims 63-70, drawn to a method for providing stratification control in a hot water tank or a method for increasing the output of a hot water tank, classified in class 210, subclass 742.
 - VI. Claims 71-88, drawn to a diffuser, classified in class 239, subclass 200.
 - VII. Claims 89-91, drawn to a method for treating ship ballast water, classified in class 210, subclass 764.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP §

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806.05(e)). In this case the apparatus as claimed can be used to practice another process, such as a process for heating a non-aqueous liquid.

Inventions I and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the apparatus does not require a heat exchanger having two outlets capable of providing water at two different temperatures. The subcombination has separate utility such as being used alone to provide heated liquid and/or steam.

Inventions I and IV are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by another process, such as a process for integrally molding the heat exchanger and water heater as a single unit at the time of manufacture.

Inventions I and V are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of

using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a different process, such as a process that does not involve stratification control or increasing output capacity.

Inventions I and VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the apparatus does not require a diffuser. The subcombination has separate utility such as diffusing liquid into a space other than an apparatus for providing purified water.

Inventions VII and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice another process, such as a process for treating water that is not within a ship ballast.

Inventions III and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as

claimed can be used in a different process, such as a process for warming that does not include purifying.

Inventions V and II are related as two processes which include steps involving similar elements, but are different in nature. Invention II is a method for purifying water which does not require stratification control or increasing output capacity of a hot water tank. Invention V is a method involving stratification control or increasing output of a hot water tank which does not require purifying water.

Inventions II and V are related as process and apparatus. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice another process, such as a process for introducing fluid to a tank that does not involve water purification.

Inventions II and VII are related as process for purifying water using heat exchange and method for treating ship ballast water. Invention II involves using a heat exchanger and does not require pumping water or inactivating microorganisms. Invention VII involves pumping water and inactivating microorganisms and does not require the use of a heat exchanger.

Inventions III and IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different

process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a different process, such as a process that heats fluid without being connected to a water heater.

Inventions III and V are related as product and process. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a different process, such as a process that heats fluid without stratification control or increasing output capacity.

Inventions III and VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the heat exchanger does not require a diffuser. The subcombination has separate utility such as for introducing a fluid to a space other than a heat exchanger.

Inventions III and VII are related as product and process. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process (MPEP § 806.05(h)). In the

instant case the process can be practiced with a different product, such as a heating coil.

Inventions IV and V are related as process of fitting elements together and process of control or increasing output capacity. The process Invention IV does not require stratification control or increasing output capacity, and the process of Invention V does not require that the heat exchanger used was fitted with an existing water heater.

Inventions IV and VI are related as process and apparatus. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the diffuser can be used to practice a different process, such as a process that does not include a water heater or heat exchanger.

Inventions IV and VII are related as process of fitting elements together and process of treating ship ballast water. The process of Invention IV does not require treating ship ballast water, and the process of Invention VII does not require the use of a heat exchanger fitted with a water heater.

Inventions V and VI are related as process and apparatus. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In

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this case the diffuser can be used to practice a different process, such as a process for introducing a fluid into a space other than a hot water tank.

Inventions V and VII are related as process stratification control or increasing output capacity and process of treating ship ballast water. The process of Invention V does not require treating ship ballast water, and the process of Invention VII does not require the use of a hot water tank.

Inventions VI and VII are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice a different process, such as a process that does not involve a ship ballast.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Applicant is advised that a reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betsey Hoey whose telephone number is (703) 305-3934. The examiner can normally be reached on Monday through Thursday from 8:30 AM to 6:00 PM, and on alternate Fridays from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. David Simmons, can be reached at (703) 308-1972. The fax phone number for official after final faxes for this Group is 703-872-9311 for all other official faxes the number is 703-872-9310, and for unofficial faxes the number is (703) 305-

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7115. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Betsey M. Hoey
BETSEY MORRISON HOEY
PRIMARY EXAMINER

October 25, 2002